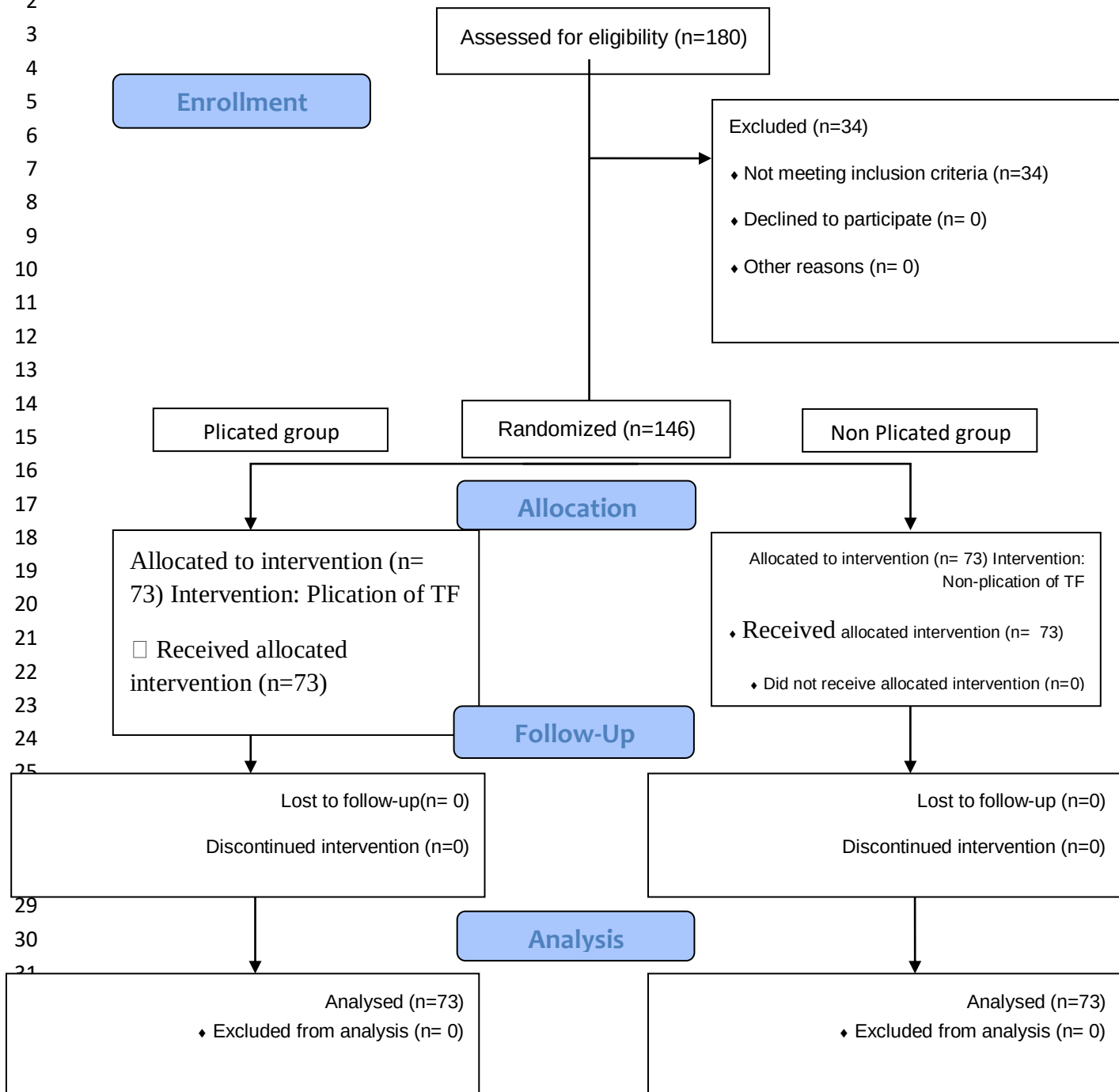


Figure (12): Flowchart of the study



Summary Results Overview

Study Title

Plication of Fascia Transversalis in Comparison to No Plication to Reduce Seroma Formation Post Laparoscopic Transabdominal Preperitoneal (TAPP) Repair for Direct Inguinal Hernia: A Randomized Controlled Trial

1. Baseline Characteristics

Variable	Plication Group (n=73)	No Plication Group (n=73)	p-value
Age (years, mean $\pm$ SD)	50.6 $\pm$ 8.3	49.1 $\pm$ 12.5	0.39
BMI (kg/m ² , mean $\pm$ SD)	27.6 $\pm$ 2.9	27.1 $\pm$ 2.9	0.23
Pre-op Albumin (g/dL)	4.18 $\pm$ 0.18	4.19 $\pm$ 0.19	0.688
Defect Size (cm)	1.55 $\pm$ 0.76	1.75 $\pm$ 0.78	0.136
Smoking (%)	20.5	24.7	0.55
Diabetes Mellitus (%)	20.5	19.7	0.90
Hypertension (%)	20.5	21.3	0.91
Bilateral Hernia (%)	13.7	13.7	1.00

Interpretation: No significant demographic or clinical differences between groups, confirming comparability at baseline.

2. Participant Flow (CONSORT Diagram Summary)

Stage	Plication Group	No Plication Group	Total
Assessed for eligibility	160	160	320
Excluded	14	14	28
Randomized	73	73	146
Received allocated intervention	73	73	146
Lost to follow-up	0	0	0
Analyzed	73	73	146

CONSORT Summary: All randomized patients completed follow-up and were included in final analysis (no attrition or exclusions post-randomization).

3. Outcome Measures

Outcome	Plication	No Plication	p-value
Operative Time (min)	109.1 $\pm$ 27.8	108.4 $\pm$ 24.6	0.80
Pain Score (Day 2)	4.08 $\pm$ 0.00	4.04 $\pm$ 0.00	<0.0001

Outcome	Plication	No Plication	p-value
Pain Score (Day 10)	1.68 ± 0.00	2.24 ± 0.00	<0.0001
Pain Score (Day 30)	0.60 ± 0.00	1.36 ± 0.00	<0.0001
Seroma (Day 2)	2.7%	19.2%	0.001
Seroma (Day 10)	2.7%	16.4%	0.005
Seroma (Day 30)	0%	12.3%	0.002
Chronic Pain (3 months)	0%	0%	—
Recurrence (30 days)	0%	1.4%	0.32

Interpretation: Fascia transversalis plication significantly reduced early postoperative seroma rates and pain scores at all time points without increasing operative time or complications.

4. Adverse Events

- Seroma: Only mild, self-resolving; significantly lower in plication group.
- Chronic Pain: None in either group at 3 months.
- Recurrence: One case (1.4%) in the No Plication group.
- Other Complications: None reported (no infections, hematoma, or mesh-related issues).
- Hospital Stay: 1 day for all patients; no readmissions.

Summary Conclusion

Transversalis fascia plication during laparoscopic TAPP repair for direct inguinal hernia markedly decreases postoperative seroma formation and pain without added operative time or morbidity. The technique is safe, simple, and improves short-term outcomes.